Wnt signaling: the beta-cat(enin)'s meow.

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Public Summary:
This review article describes the current state of our understanding of a protein called beta-catenin. This protein is a critical mediator of the Wnt signaling pathway which controls the behavior of stem cells. The state of Wnt/beta-catenin signaling determines whether a stem cell self-renews, proliferates or differentiates.

Scientific Abstract:
In a study in the December 15, 2011, issue of Genes & Development, Valenta and colleagues (pp. 2631-2643) constructed a series of beta-catenin mutants that allowed them to separate beta-catenin's activity as a mediator of Wnt signaling from its activity as cell adhesion component. In doing so, they uncovered some surprising properties of Wnt signaling.